

# Binary Explosives



Binary explosives are pre-packaged products consisting of two separate components, usually an oxidizer like ammonium nitrate and a fuel such as aluminum or another metal. These components typically are not listed separately on the List of Explosive Materials and do not meet the definition of "Explosives" in 27 CFR 555.11. Therefore, ATF does not regulate the sale and distribution of these component chemicals, even when sold together in binary "kits." However, when the binary components are combined, the resulting mixture is an explosive material subject to the regulatory requirements found in

27 CFR, Part 555.

## Storage

All explosive materials, including mixed binary explosives, must be stored in locked explosives storage magazines as prescribed in the regulations found in 27 CFR, Part 555, Subpart K?Storage, unless they are in the process of being used, manufactured, transported, or physically handled in the operating process.

- *High explosives ? such as mixed theatrical flash powder?must be stored in Type 1 or Type 2 magazines, or in Type 3 magazines for temporary attended storage.*
- *Low explosives must be stored in Type 1, Type 2, or Type 4 magazines, or in Type 3 magazines for temporary attended storage.*

Explosive materials may not be left unattended in Type-3 magazines (day boxes) and must be removed to Type 1, 2 or 4 magazines for unattended storage. For indoor storage, explosives magazines are not permitted in any residence or dwelling, and no more than 50 pounds of explosive materials may be stored in any single building. Storage regulations do not apply to binary explosives until they are mixed.

## Manufacturing



Mixing binary components together constitutes manufacturing explosives. Persons manufacturing explosives for their own personal, non-business use only (e.g., personal target practice) are not required to have a Federal explosives license or permit. However, individuals or companies must obtain a Federal explosives manufacturing license if they intend to engage in the business of manufacturing explosives for sale or distribution, or for their own business use. Such business uses include

manufacturing for use in commercial blasting applications, removing obstacles such as trees or

rocks during construction, theatrical special effects, and for demonstration or product testing purposes.

Therefore, licensed manufacturers and dealers of pre-mixed binary explosives kits, such as those used to make exploding targets, including those who combine the components to make videos or photos for use in marketing, or to test the product, are subject to Federal recordkeeping requirements and must maintain records of manufacture or acquisition, distribution, exportation, use, inventory and daily summaries of magazine transactions found in 27 CFR, Part 555, Subpart G?Records and Reports.

## Transporting

The Federal explosive laws, as amended by the Safe Explosives Act, prohibit anyone other than a licensee or permittee from knowingly transporting, shipping, causing to be transported, or receiving explosive materials. Persons not holding a current ATF explosives license or permit may not transport or ship explosive materials, even within their State of residence. Therefore, a person must obtain a Federal explosives license or permit if they mix binary explosives and subsequently transport them to any other location, such as transporting exploding targets to a shooting range.

## Compliance with Other Requirements



All persons making explosive materials are cautioned that there may be State or local requirements in addition to the Federal explosives regulations. These requirements may apply whether a person is engaging in the business of making explosives under an ATF license or for personal non-business use. Transporting explosive materials on public roads may subject the person transporting the explosive devices to regulations under the U.S. Department of Transportation (DOT). All persons transporting explosive materials should

consult with DOT prior to transporting explosives to ensure compliance with all applicable DOT requirements.

## Prohibited Persons

Persons falling into certain categories are prohibited from possessing explosive materials under the Federal explosives laws. While binary kits are not regulated by ATF, combining the binary components produces an explosive material subject to Federal explosives laws and regulations. Therefore, a prohibited person may not possess mixed binary explosives, such as exploding targets or theatrical flash powder. A prohibited person is any person who:

- *Is under indictment or information for, or who has been convicted of, a crime punishable by imprisonment for more than 1 year;*
- *Is a fugitive from justice;*

- *Is an unlawful user of, or addicted to, any controlled substance;*
  - *Has been adjudicated as a mental defective or has been committed to a mental institution;*
  - *Is an alien (with some exceptions);*
  - *Has been discharged from the armed forces under dishonorable conditions; or*
  - *Has renounced their United States citizenship.*
- Any person falling into any of the above categories is generally prohibited from possessing explosive materials. However, such persons may apply to ATF for relief from their Federal explosives disabilities.

## Safety and Security



ATF would like to remind those who manufacture, distribute, import, use, or store binary explosives of the vital importance of security safeguards for these materials. Whether the explosive materials are in the process of manufacture, in storage, or in use, we urge everyone to take all necessary measures to safeguard explosive materials and prevent them from falling into the hands of those who may use them in criminal or terrorist acts.

We encourage all persons involved with binary explosives to report any suspicious behavior or unusual activity surrounding these materials to ATF and to local law enforcement authorities. (Suspicious behavior may include a customer attempting to purchase large quantities of binary explosive materials while knowing little about the product, or a customer who acts nervously or behaves in an unusual manner.) Unlike regulated explosives materials, ATF does not require persons to report the theft of precursor or binary explosive components. However, we request that everyone voluntarily report any theft or loss of these chemical explosive precursors to the local law enforcement authority and to the United States Bomb Data Center at [\(800\) 461-8841](tel:8004618841) (after hours, call the ATF 24-hour hotline at [\(800\) 800-3855](tel:8003855)).

*Last Reviewed September 22, 2016*